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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/628,398	Applicant(s) USUI, KAZUTOSHI	
	Examiner Nhan T. Tran	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/8/2007 & 6/29/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/8/2007 with respect to claims 1-5, 7-28 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 6/8/2007 with respect to claim 6 have been fully considered but they are not persuasive.

The Applicant asserts that Washisu does not disclose or suggest holding the blur correcting optical system at a specific position in the disabled state by supplying power at a specific time point as recited in the independent claim 6.

In response, the Examiner respectfully disagrees with the Applicant's assessment of claim 6 as to the claim being broadly written to read on the disclosure of Washisu as follows.

It is seen in Washisu, col. 34, lines 14-34 that the correction lens 1202 is driven to the center of photographing optical system in the disabled state by supplying power to the yaw and pitch motors 1206 and 1210 and being held momentarily thereby by the yaw and pitch motors 1206 and 1210 for ensuring that the correction lens is located at the center of the photographing optical axis before the power supply to the motors is stopped. Since the claim broadly recites, "...and hold the blur correcting optical system at the position by supplying power at a specific time point," this is not necessarily understood as holding the blur correcting optical system at the position by supplying power to the drive unit during an entire holding period of the blur correcting optical

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system. In stead, the claimed "specific time point" is met by the time when the correction lens in Washisu just reaches the center of the photographing optical system and immediately held thereby before the power supply is stopped. It should be noted that, when the blur correction in Washisu is set to the disabled state from the enabled state (where the correction may be located at an off-center position), the yaw and pitch motors 1206 and 1210 are still partially powered to make sure the correction lens 1202 is moved back to the center of the photographing optical axis before the power supply is stopped. Therefore, holding the correction lens 1202 at the center of the photographing optical system in the disabled state is assisted by supplying power to the yaw and pitch motors 1206 and 1210 at a specific time to ensure the correction lens 1202 is at the center of the photographing optical system.

In view of the above, claim 6 is met by the disclosure of Washisu.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 6/8/2007 and 6/29/2007 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

4. Amendments to specification filed 6/8/2007 to comply with the Examiner's objections in the previous office action are acknowledged and accepted. By these amendments, the objections to specification and drawings are withdrawn.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in JAPAN on 8/27/2002 & 9/27/2001. It is noted, however, that applicant has not filed certified copies of the JP 2002-246623 and JP 2001-297149 applications as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Washisu (US 6,704,501).

Regarding claim 6, Washisu discloses a blur correction apparatus (col. 1, lines 5-10) comprising:

a blur correcting optical system (Fig. 19) including at least a part of a photographic optical system (a photographic lens illustrated in Fig. 29), which corrects a blur occurring at an image-capturing surface of a photographing apparatus by moving

within a movable range (a moveable range of pitch and yaw motors 1206 and 1210 in the structure shown in Fig. 19) extending along a direction (pitch and/or yaw direction) substantially perpendicular to an optical axis of the photographic optical system (see Fig. 19; col. 34, lines 12-34; col. 31, lines 27-28 and col. 32, lines 15-16);

a blur correction drive unit (Fig. 19, pitch and yaw motors 1206 and 1210) that drives the blur correcting optical system (col. 34, lines 27-34);

a blur correction operation enabling unit (Fig. 29, blur correction inhibiting switch 1704) that selects either a blur correction enabled state (e.g., blur correction is not inhibited when the switch 1704 is OFF) in which a blur correction operation executed by driving the blur correcting optical system is enabled (blur correction is operated) or a blur correction disabled state (e.g., blur correction is inhibited when the switch 1704 is ON) in which the blur correction operation is disabled (see col. 47, lines 30-45 and col. 34, lines 14-34);

a control unit (camera microcomputer 1301 shown in Fig. 28 or Fig. 22) that controls the blur correction drive unit in the blur correction disabled state (blur correction is not needed) so as to move the blur correcting optical system to a position (the center of the photographing optical system) at which the optical axis of the photographic optical system and an optical axis of the blur correcting optical system are substantially aligned with each other at a start of a photographing operation and hold the blur correcting optical system at the position by supplying power at specific time point (see col. 34, lines 14-34 and col. 47, lines 30-45 and *note the Examiner's response in section 2 above*).

7. Claims 1-4, 6-7, 9-11, 13-17, 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Usui (US 5,619,293).

Regarding claim 1, Usui discloses a blur correction apparatus (Figs. 1(A)-8(B) and col. 1, lines 10-16) comprising:

a blur correcting optical system (blur suppression lens 10 shown in Fig. 1(A)) including at least a part of a photographic optical system, which corrects a blur occurring at an image-capturing surface of a photographing apparatus by moving within a movable range extending along a direction (X and/or Y direction) substantially perpendicular to an optical axis (axis I) of the photographic optical system (see Fig. 1(A) and col. 4, lines 52-67);

a blur correction drive unit (combined coils 14a/14b, yokes 13a/13b and magnets 12a/12b shown in Figs. 1(A) – 2) that drives the blur correcting optical system (col. 4, lines 52-67);

a blur correction operation enabling unit (circuit shown in Fig. 4) that selects either a blur correction enabled state in which a blur correction operation executed by driving the blur correcting optical system is enabled (when a camera shaking is detected by the angular sensor 40, the circuit in Fig. 4 outputs a blur correction enable signal to drive the blur correction drive unit as illustrated in step S105 in Fig. 5) or a blur correction disabled state in which the blur correction operation is disabled (when there is no camera shaking detected by the angular sensor 40, the blur correction drive unit is not driven; see col. 5, line 56 – col. 6, line 27);

a control unit (a camera controller executes control steps as shown in Fig. 5) that controls the blur correction drive unit in the blur correction disabled state so as to hold the blur correcting optical system at a specific position (center position of the photographing optical system) in the blur correction disabled state by supplying power at a specific time to the blur correction drive unit in the blur correction disabled state (see col. 6, lines 52-55; col. 7, lines 15-20; col. 8, lines 35-56 and col. 2, lines 17-21, wherein lens 10 is held at the center optical axis I by supplying power to the coils during the centering process under normal photographing circumstances due to sag of support members of the lens 10; it is inherent in Usui that the centering process is also performed where no shaking is detected or so called blur correction disabled state since this centering process is a default calibration process of the camera for aligning the optical axis OC of lens 10 with the main optical axis I of the camera regardless of whether there is a camera shake or not so that the good resolution of the overall photographic is always maintained as disclosed in col. 7, lines 15-20) and that stops supplying power to the blur correction drive unit in the blur disabled state (this is when the camera is turned off or no photographing session is initiated) so as to not hold the blur correcting optical system at any specific position (see Figs. 3(A) & 3(B); col. 4, lines 8-10 and col. 5, lines 33-47, wherein the lens 10 is not held at any specific position because support rods 11 are elastic material which allows the lens to move freely when power is not supplied to the coils 14a/14b).

Regarding claim 2, this claim is also met by the analysis of claim 1 above, wherein the blur correcting optical system (lens 10) can freely move within a movable range (Figs. 3(A) & 3(B)) in the blur correction disabled state when the power supplied is stopped.

Regarding claim 3, it is also clear in Usui that the specific time point is a photographing operation start point (see Fig. 5, where the photographing operation start point is at step S103).

Regarding claim 4, Usui further discloses that the specific time is a time point at which the photographing apparatus is subjected to a shock (see the analysis of claim 1 for the centering process at the specific time regardless of whether the camera is subjected to a shock or not, which encompasses the case where the camera is subjected to the shock as illustrated in Fig. 5).

Regarding claim 6, this claim is also met by the analysis of claim 1.

Regarding claim 7, Usui also discloses a photographing apparatus (i.e., an optical disk camera or a camcorder; col. 12, lines 1-20) comprising:

a blur correction apparatus according to claim 1 (see claim 1);

an image-capturing device (i.e., an image sensor of the camcorder) that electronically captures an image obtained through the photographic optical system; and

a recording processing unit that records the image captured by the image-capturing device into a recording medium (i.e., an optical disk or tape of the camcorder; see col. 12, lines 1-20, and it should be noted that camcorder is a short form of camera and recorder).

Regarding claims 9-11, these claims are also met by the analyses of claims 2, 3, 4 & 7.

Regarding claim 13, this claim is also met by the analysis of claims 6 & 7.

Regarding claim 14, it is clear in Usui that the blur correcting optical system is held by electromagnetic force to maintain an image position at the image-capturing surface in the blur correction disabled state (see col. 5, lines 20-31; col. 6, lines 52-55; col. 7, lines 15-20; col. 8, lines 35-56 and col. 2, lines 17-21; please note the Examiner's analysis in claim 1 for centering process in the blur correction disabled state).

Regarding claim 15, as seen in Fig. 2, col. 5, lines 20-31 and col. 6, lines 52-55 of Usui, the blur correcting optical system is held at the specific position (the center optical axis I) by supplying the power without any mechanical contact between the blur correcting optical system and the blur correction drive unit (only electromagnetic force is used to drive the blur correction optical system).

Regarding claim 16, Usui clearly discloses that the blur correcting optical system is held at the specific position with at least one elastic member (at least one elastic rod 11 as shown in Fig. 1(A) and col. 4, lines 8-10).

Regarding claim 17, Usui clearly discloses that the control unit control the blur correction drive unit to hold the blur correcting optical system at the specific position (the center optical axis I for compensating the sag of the support members as discussed in claim 1) unless a predictable shock has occurred (see step S105 in Fig. 5, col. 6, line 64 – col. 7, line 8, wherein if shock, i.e., shaking, is detected, the blur correcting optical system is driven in the direction to cancel shaking in this step).

Regarding claim 26, this method claim is also met by the analysis of claim 1, wherein “the corrector” is the blur correction lens 10, and “a first direction” is either the X direction (yaw) or Y direction (pitch). Furthermore, Usui also anticipates “resupplying the power in the correction disabled state to hold the corrector at a predetermined position” when the camera is turned off and then turned on again for another photographing session. In this case, the power is resupplied for performing centering process of the lens 10 in the calibration process as discussed in claim 1.

Regarding claim 27, this claim is also met by the analysis of claim 1, wherein the blur correction lens 10 is held at the center optical axis during centering process in the

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blur correction disabled state by electromagnetic force generated by the coils, yokes and magnets.

Regarding claim 28, this claim is also met by the analysis of claim 2. Note that the corrector can freely move in any direction including the first direction by virtue of the elastic rods 11.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Washisu (US 6,704,501 B1) in view of Eto et al. (US 7,113,204 B2).

Regarding claim 13, Washisu discloses a photographing apparatus (i.e., a single lens reflex camera or a video camera as described in col. 50, lines 8-16) comprising:

a blur correction apparatus according to claim 6 (see the analysis of claim 6 above);

an image capturing device that electronically captures an image obtained through the photographic optical system (see col. 50, lines 8-16 in which the camera is single lens reflex camera or a video camera. Thus, an image sensor for electronically

capturing an image through the photographic optical system is inherent because the camera is a video camera).

Since not all of video cameras (not camcorders) have a recording processing unit and a recording medium but instead the recording processing unit and a recording medium might be located at a remote site, Washisu does not fairly disclose or suggest a recording processing unit that records the image captured by the image-capturing device into a recording medium.

In a reference to Eto, a video still camera (Fig. 1) having blur correction function (antivibration function 31) can capture an image and process to record the image into a recording medium (recording unit 203). See Eto, col. 10, lines 51-62.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Washisu and Eto to arrive at the Applicant's claimed invention by providing the camera with a recording processing unit and a recording medium for recording a captured image. Doing this would allow the user to conveniently record desired images into a recording medium of the camera for later reviewing or reproducing.

9. Claims 18-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Washisu (US 6,704,501 B1) in view of Yamamoto et al. (US 5,655,170).

Regarding claim 18, Washisu discloses a photographing apparatus (Figs. 19, 28 & 29) comprising:

a flash device (strobe device 1308) that illuminates an object (see Fig. 28 and col. 35, lines 28-31);

a corrector (correction lens 1202 shown in Fig. 19) that corrects a blur of the photographing apparatus (col. 34, lines 14-34);

a controller (microcomputer 1301 shown in Fig. 28) that controls the corrector so as to hold the corrector at a constant position (the correction lens 1202 is held at the center of photographing optical system when the blur correction is not needed as described in col. 34, lines 14-34 and col. 47, lines 30-45) during the activation of flash device (see col. 35, lines 28-31, and it should be noted that the user can take an image of the object with the illumination from the flash device when the correction lens 1202 is still held at the center of the photographing optical system if the blur correction is not needed).

Although Washisu discloses that the flash device is activated for illuminating the object during the corrector (the correction lens 1202) is held at a constant position, Washisu is just silent as to a *moveable* flash device which is moved to a first position by a moving mechanism for illuminating the object while at the first position when the corrector is held at the constant position.

However, it is well recognized by Yamamoto that a camera can be implemented with a pop-up flash device (Fig. 1, flash device 13). According to Yamamoto, the flash device is moved from a stowed position to a pop-up position by a moving mechanism (Figs. 3 & 4) to illuminate the object when the photographing operation is executed (see Yamamoto, col. 5, lines 29-39). It is a common knowledge to protect the flash device

when unused by moving it into a stowed position in a compact design as suggested by Yamamoto, col. 16, line 66 – col. 17, line 8.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Washisu and Yamamoto to provide a movable flash device that would be moved to a first position (pop-up position) by a moving mechanism for illuminating the object when photographing during the corrector being held at the center of the photographing optical system in a blur correction disabled state.

Regarding claim 19, as clearly disclosed by Washisu in col. 50, lines 17-24 that an interchangeable lens that is detachable from the photographing apparatus, the interchangeable lens comprising the corrector.

Regarding claim 20, Washisu also discloses that the controller controls a driver (motor 1206 and/or motor 1210 shown in Fig. 19) which drives the corrector to correct the blur (col. 34, lines 14-34).

Regarding claim 21, Washisu in view of Yamamoto as analyzed in claim 18 clearly discloses that the flash device illuminates the object during exposure executed by the photographing apparatus (see Washisu, col. 35, lines 28-31 and Yamamoto, col. 5, lines 29-39).

Regarding claim 22, as shown in Figs. 3 & 4 of Yamamoto, the moving mechanism comprises a spring member (13g; see Yamamoto, col. 8, lines 35-36).

Regarding claims 23 & 24, these method claims are also met by the analyses of claims 18 & 21, wherein "moving the corrector in a first direction" is met by the moving the correction lens 1202 in Washisu in a yaw direction.

Regarding claim 25, Washisu also discloses supplying power to the corrector to move the corrector in the first direction (see Washisu, col. 34, lines 14-34).

10. Claims 5 & 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (US 5,619,293) in view of Washisu (US 6,704,501 B1).

Regarding claim 5, Usui does not teach that the time point at which the photographing apparatus is subjected to a shock is at least at time point at which a focal length (zoom value) is changed by the photographic optical system.

However, as taught by Washisu, a blur correction is not performed when the product of shutter speed and zooming (focal length) is smaller than a predetermined value because hand vibration hardly causes image deterioration in such a situation (col. 41, lines 58-61).

Therefore, it would have been obvious to one of ordinary skill in the art to configure the apparatus of Usui by holding the blur correcting optical system at the

center optical axis at the time point at which the photographing apparatus is subjected to a shock when a focal length (zoom value) is changed to a predetermined value that hardly causes image deterioration as taught by Washisu, thereby saving power consumption for the apparatus regarding unnecessary correcting operation.

Regarding claim 12, this claim is also met by the analyses of claims 5 & 7.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Usui (US 5,619,293).

Regarding claim 8, although Usui does not explicitly disclose a display unit that displays the image obtained through the photographic optical system, an Official Notice is taken that such a display unit is well known in the art that can be built in the camera for displaying the image obtained through the photographic optical system so that the photographer/user can view the image of object in real time during photographing. Therefore, it would have been obvious to one of ordinary skill in the art to include a display unit in Usui for displaying the image obtained through the photographic optical system so as to provide live view framing to the photographer/user during photographing.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Nhan Tran', with a stylized, flowing script.

NHAN T. TRAN
Patent Examiner